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THOMAS G. NEWMAN, Editor.

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EDITORIAL BUZZINGS.

So Far, the general report is that the bees are wintering well. We have had many cold spells, but such have been of short duration, and the bees have not suffered any inconvenience on that score. What the rest of the winter may be, is as yet an uncertainty.

New Patents.—Two new patents on bee-hives were granted on Dec. 20, 1887. One to T. M. Cobb and the other to F. Danzenbaker. The number of the former being 375,261; and the latter 875,269. What the special features are we know not.

The Ontario bee-keepers met in convention at Woodstock last week, and had an interesting meeting. Martin Emigh was elected President, and J. B. Hall Vice-President. We expect to publish a report of the proceedings next week.

The New York Bee-Keepers are now in session. The nineteenth State Convention met on Tuesday of this week for a three days' session at Utica. We are sorry we did not get the programme until our last week's issue was on the press, or we should have published it entire. We hope that the meeting will be one of great interest and enthusiasm.

Father Langstroth is again heard from, and our readers may expect an article from his pen in next week's BEE JOURNAL. He intends to go to Cincinnati this week to obtain medical treatment to relieve him from his distressing "head troubles," which is promised by the physician he intends to visit. We hope he will succeed in obtaining a cure.

Drunken Loafers.—That is what the New Orleans *Picayune* calls the bees. It says:

A lady living in Rappahannock County, Va., had 12 colonies of bees, which were very valuable until a distillery was started in the neighborhood. Since it was started, however, the bees pay frequent visits to the still, get very drunk, and are of little profit.

The Chicago *Herald* commenting upon this circumstance, gets off the following, calling them "boozy bees:"

A lady in Virginia has a colony of bees that go to a neighboring distillery and get tipsy. This is a sad revelation for the moralist who is fond of holding up the bee as a bright and shining model for thrift, sobriety and industry. The didactic poetry regarding the little boozy bee seems to be in need of revision.

Mrs. Mahala B. Chaddock remarks very pointedly on the above in the *Farm, Field and Stockman* as follows:

Bees never work on grapes or peaches, neither do they frequent cider-mills or distilleries, except when there is no honey in the flowers. At such times there is no honey coming in, or not enough for the bees to store it.

No one need have the least fear of contracting the taste for whisky from eating honey, as there never was anything more true than this. If bees are gathering honey, they do not trouble distilleries; if they go to the stills they are not gathering honey.

The Reaction Comes, as well to the grape-bees controversy as to many other things. We find the following item now "going the rounds" in the political papers, and such will do much to dispel the prejudices of grape-growers to the bees. Here is the item:

BEES INJURING GRAPES.—The Columbus Horticultural Society reports to the *Country Gentleman* an experiment performed by Mr. McLain, of Aurora, Ills. In a grape-house well ventilated, but bee-proof, he places grapes and other ripe fruits sound as well as imperfect. Three colonies of hungry bees, hived on empty combs, were placed within. They visited the fruit in great numbers, and took advantage of every crack or opening or accidental puncture. They never molested sound fruit. If the skin of a grape was broken or burst from over-ripeness, the bees sucked the exposed juices. They did not attempt to break the skin. The experiment was continued 30 days, with 20 sorts of grapes, with the same result. When grapes were punctured with needles, the bees sucked the juice out only so far as they could reach.

W. R. Graham, Greenville, Texas, on Jan. 10, 1888, writes his congratulations on the BEE JOURNAL for 1888, and adds:

I obtained nine cash premiums at the Texas State Fair and Dallas Exposition, on bees, honey, and bee-fixtures.

"Up to this Time I think bees are wintering good. The weather has been favorable; not much zero weather." So writes M. L. Spencer, of Little Genesee, N. Y. He then adds: "I congratulate you on the appearance of the AMERICAN BEE JOURNAL. I think it much improved for 1888."

Bees from Carniola or Krain, in Austria, are generally known in Europe as Krainer bees; in America as Carniolan bees. Many of these queens are now sent across the ocean by mail, every year, by Mr. Benton, of Munich. Mr. B. is an American, and used to attend the Mich. Agricultural College.

Carniola is a province of Austria, just south of Vienna, and nearly borders Italy on the northeast—the Adriatic intervening. A continuation of the Alpine Mountain range runs through the province—and hence the hardihood of the bees from that mountainous region.

Cabbage and Celery Plants.—A guide to their successful propagation. A new manual of instruction by Isaac F. Tillinghast. Seed and plant grower, and editor of *Seed Time and Harvest*, LaPlume, Pa., 32 pages. Illustrated. Price 25 cents.

This little volume relates in an interesting manner how two farmer's boys started a vegetable plant trade, on a farm in the country, which developed into a large seed and plant business, which now reaches into every corner and section of the Union. It gives modern plans for constructing low-cost hot-beds and greenhouses, to be heated by fermenting manure, fire flues, and hot water. Also, how to successfully grow cabbage and celery plants in the open ground, with certain methods of protecting them from destructive insects and diseases, which have not heretofore been given to the public.

There are no doubt thousands of locations in which, with the aid of this little instructor, an active farmer's boy, or established market gardener, might work up a very remunerative plant business with very little expense or trouble.

☞ We will send the above and the BEE JOURNAL for one year, for $1.15.

Every One having a garden, or even a shrub, should own and study Vick's Floral Guide, published at Rochester, N. Y., price 10 cents, and a due-bill for 10 cents worth of seeds accompanies the Guide.

Interesting Library.—Mr. S. B. Brillhart, of Kendallville, Ind., writes thus:

For the past five years I have had the AMERICAN BEE JOURNAL bound, and it is beginning to make a very interesting library on "the bee." The BEE JOURNAL is just what every one who owns bees ought to take. It *pays*, and that is a good reason. I usually keep about 25 colonies of bees.

New Catalogues for 1888 are on our desk, from the following persons:

J. D. Goodrich, East Hardwick, Vt.—16 pages—Apiarian Supplies.

H. G. Frame, North Manchester, Ind.—4 pages—Bees, Queens, etc.

Geo. H. Kirkpatrick, New Paris, O.—16 pages—Bees and Supplies.

A. D. Hale, Deer Lodge, Tenn.—20 pages—Poultry.

Cole & Brother, Pella, Iowa—40 pages—Vegetable, Flower and Garden Seeds.

GLEANS OF NEWS.

The Next Convention, etc.—Concerning the re-location of the next annual meeting of the North American Bee-Keepers' Society, and other subjects, Prof. A. J. Cook writes as follows:

AGRICULTURAL COLLEGE, MICH.,
Jan. 12, 1888.

DEAR MR. EDITOR:—Dr. Mason is, as usual, wise in his suggestions. Our calamity is our "magnificent distances." It costs so much to attend our meetings! This is why we cannot hope to equal Europe. Whatever, then, will lessen expense is to be advocated. If the Centennial will give reduced rates to Columbus, O., then I vote for Columbus. Again, it would be nearer the South; and as I remember the cordial greeting that we received at Louisville some years since, I feel desirous to meet the Southern bee-keepers again. I vote for Columbus.

Ohio Horticulturists and Bees.

I am glad that Dr. Mason is stirring up the Ohio horticulturists on the bee-question. I had the honor of addressing that Association a year ago, at their annual meeting, and I told plain truths about bees. The truth is, the value of bees, aside from the honey which they gather, is so important that all, especially farmers and horticulturists, should know of it. Therefore I lose no suitable occasion to spread this knowledge. I think that all bee-keepers should be equally ready. We can thus create right views where ignorance and prejudice now reign.

Fraternal Good-Will.

The words from our good friend, Mr. McKnight, are good reading. Who could imagine Dr. Mason with malice in his heart? If any man in America has "good-will to man" written all over his face, that man is our big, fat, jolly friend of Toledo. I could but think, as I read Mr. McKnight's article, how the bee-periodicals had changed in the past few years. In the olden time, quarrels, invective and vindictive thrusts were all too common. Now everybody is kindly disposed, and a good brotherly temper pervades every page of all our bee-papers. That this spirit will never be replaced, is my hope, as it is my belief.

As to changing the location of the next meeting, the executive committee have full power under the Constitution to make the change, if they are satisfied of its desirability. The points of advantage mentioned by Dr. Mason are ample, in our opinion, and the change should be decided upon, and notice given as soon as possible.

The location of the "Centennial Exposition of the Ohio Valley and Central States" is at Cincinnati, O., and the time of holding it is from July 4 to Oct. 27, 1887. As Brother Muth was the first to suggest the holding of the next meeting of the North American Bee-Keepers' Society at Cincinnati because of this Centennial Exposition, cheap fares, etc., and as he is "a *host*" to make good arrangements for such a meeting—we vote for Cincinnati.

The Centennial Exposition in Columbus, O., is to be held in September, a trifle too early for a successful bee-meeting.

As to the fraternal and friendly feeling mentioned by Prof. Cook, no one rejoices more in its "exhibition" than do we; indeed it is our opinion that no one should attempt to write on matters apicultural, with any other intent or purpose; in its absence, let the pen be dropped, and not resumed until such a disposition is in full possession.

Experiment in Freezing Bees.—Mr. J. C. Haines, of Herkimer County, N. Y., writes to *Gleanings in Bee-Culture*, in relation to an experiment in freezing bees, to find if they might again be revived, as follows:

I got a pan of clean, dry snow, just after it had fallen, set it in the barn to keep it soft and light, and on Nov. 30, about 3 p.m., I opened a strong colony, smoked slightly. In a little while I took a small handful and dropped them in the pan of snow. As soon as they were chilled, I put some in a dry paper box, and set them in a small open building. Next morning we brought two of each lot into the house, put them on the mantel near the kitchen stove, where it was nice and warm (not hot), but they showed no signs of life. We left them in all day, and got more of each lot, but they showed no signs of life at all. To-day I brought more in, but could not see any signs of life. They are quite dead. We opened some and they seemed to be filled with honey.

At the time when we put the bees in the snow in the first place, it thawed some on the south side of the house, and the bees were bright and active, and seemed quite strong; but it was very cold that night. Next morning the thermometer was down to 5° below zero, and the next day was very cold. The thermometer was at zero. So you see if there is anything in its being cold, they had the benefit of it.

Neat as Wax.—Mr. J. M. Shuck, of Des Moines, Iowa, writes us as follows:

No. 1, Vol. XXIV, of the AMERICAN BEE JOURNAL is received, and in a new dress, greatly improved in appearance. It looks like the baby's first tooth, neat as wax. It is certainly equipped for a trip "all around the world."

Succeeded Grandly.—The *Republican Standard*, published at New Bedford, Mass., gives us this unsolicited notice, for which it has our thanks:

When the AMERICAN BEE JOURNAL commenced its appearance as a weekly, it was prophesied that it would not succeed, but it has grandly. Every number is full of useful information.

The *Journal* of Lewiston, Maine, remarks as follows on the same topic:

The AMERICAN BEE JOURNAL is the oldest bee-paper in America, but that isn't all; it stands at the head in bee-literature, giving from week to week the best thought and practice in apiarian art. No one who keeps bees can expend a dollar to better advantage than to subscribe for this JOURNAL.

The Canadian *Bee Journal* is a year behind the times. It apologized on the first page for having "1887" on the cover, and just above the apology is the date in black-faced type, "Jan. 4, 1887." In this case "two wrongs will not make one right." But mistakes will happen in the best regulated families.

The Review came promptly to our desk, and is very attractive in appearance. Its reading matter is much superior to the ordinary "run" of such, in the various new bee-papers. The complete list of contents may be found on page 47.

The principal topic in this first number is "Disturbing bees in winter," which the editor "sums up" in these words:

What bee-keeper that does not delight, in winter, when the mercury is coquetting with zero, to enter a comfortable bee-cellar, in which the hives stand in long rows, tier above tier, and peep into their entrances and see the bees hanging from the combs in golden-brown clusters? And how many in making these visits have not, sometimes, felt that they were trespassing upon forbidden ground; that the price of these admiring glances might be disease and death to the admired? We have often had such thoughts; have felt that a visit in winter to the bee-cellar, or a peep into a hive out-of-doors, was something like a stolen pleasure; but these thoughts will come no more, for we are thoroughly convinced that such examinations do no harm. That bees can be moved in winter, or the hives opened, combs taken out, bees examined, etc., and no injurious results ever follow, we are not so certain; but that such treatment seldom results in harm, we are well satisfied. We recollect reading a report of some bee-keeper who lost part of his bees from starvation in the cellar. He knew they were short of stores, but feared to disturb them, lest it should result in greater loss than would starvation. Had we colonies of bees that we thought might be lacking in stores, we should unhesitatingly examine them, and feed them, too, if we found them in need.

The frequent and extensive handling of bees during winter, indulged in by some of our correspondents, might, perhaps, have had less happy closing chapters, had the food been of a different character; in fact, all are quite well agreed that frequent disturbance may aggravate the evils arising from unsuitable food; and, as the years roll by, we are becoming more and more convinced that *food* is the pivotal point upon which turns the question of wintering bees in a Northern climate. Our faith in the popular belief that disturbing bees in winter is necessarily injurious has been entirely destroyed; and our advice would be: If you wish to know how your bees are wintering, go and examine them—quietly and carefully, and if you think they need food, or any other attention, make the necessary examination and give the required care with but little fear that the disturbance will cause injury.

We wish the *Review* a long and prosperous career, and its editor all the success he could wish for himself. No. 1 is excellent, and should please the most fastidious.

We are Sorry to learn that our friend Paul L. Viallon, of Bayou Goula, La., has been quite ill for some time. Bronchitis is the cause of the trouble. He is now recovering, and this will be good news to our readers, as he is to give us answers to queries hereafter. The first answers from him appear in this number of the BEE JOURNAL. In reference to moving an apiary, he remarks as follows:

A few years since I moved my apiary about 5 acres, during a cold day. I placed a slanting board in front of each hive, as advised by Mr. Dadant, and I do not think that a handful of bees returned to the old location.

The School of Sorrow.

BY J. K. LUDLUM.

The mills of God grind slowly;
They grind exceedingly small,
For whoso' the Father loveth
He chasteneth, one and all.

Sunlight will ripen harvest,
But without clouds and rain
The seeds in spring-time scattered
Could never grow into grain.

Smiles are soothing and pleasant,
Happiness good to behold,
But without the fire refining
How could we test the gold?

If we should suffer no sorrow,
How could we count the cost?
Would not our hearts grow careless?
All our sympathies lost?

"Sorrow makes all men brothers,"
Sorrows our hearts refine;
The whirlwind smiting the forest
Tests the strength of the pine.

Aye, bitter the school of sorrow,
Bitter the cross and pain;
But trial worketh patience,
And loss is followed by gain.

—*Written for the Ætna.*

BIOGRAPHICAL.

MR. IVAR S. YOUNG, OUR VISITOR FROM NORWAY.

We have received the following letter from Mr. Young, and in order that our readers may get an idea of his personal appearance, we have prepared an engraving from the photograph which he presented to us for our Bee-Keepers' album. Mr. Young's letter reads thus:

MESSRS. THOS. G. NEWMAN & SON:—Will you kindly allow me to express, through the AMERICAN BEE JOURNAL, my most cordial thanks for all the friendliness and affability which were so profusely shown to me during my memorable visit amongst the bee-friends of the United States and Canada. I will, as long as I live, take delight in thinking of my trip, and never! no never! forget the World's most able bee-keepers, nor their exceeding hospitality towards me, as a stranger.

I only regret, that my time was so limited, that I had no opportunity of personally calling on the many more, whose names were so well known and dear to me from the bee-periodicals.

Respectfully yours,
IVAR S. YOUNG.

The apiarists of America will appreciate Mr. Young's expressions of kind feeling and regard, and duly reciprocate them, for he may very properly be called "the father of modern bee-keeping in Norway."

Mr. Young's visit to America was at the instigation of the Norwegian Government, and at its expense; and his mission was to gather up all the information possible to be obtained in reference to modern and progressive apiculture in America, together with details of methods and samples of implements. Such will be used in the interest of "apiculture as an industry" in Norway.

The Norwegian Bee-Keepers' Society was organized in 1884, and has about 1,500 members. It also publishes a monthly bee-paper, entitled *Tidskrift for biskjotsel* at Christiania, Norway, of which Mr. Young is the editor, and every member receives a copy free.

Mr. Young has also published a book on apiculture, entitled "Praktisk lommebog i tidsmæssig biskjotsel," which is well printed and illustrated.

Mr. Young has "written up" his trip in America, and it is published in his paper. We cannot read it, but expect to have it translated, and in a future number we shall present the salient points to our readers. When Mr. Young was visiting Mr. Holter-

MR. IVAR S. YOUNG.

mann, editor of the *Canadian Honey Producer*, he obtained and published the following facts concerning

Bee-Keeping in Norway.

We had a very pleasant and instructive conversation with Mr. Young, and, of course, made all possible inquiries about the state of bee-keeping in Norway.

Bees can be kept very well as far north as Drontheim. In Norway, as here, there is no method by which the number of colonies can be ascertained, but the number of colonies kept are estimated at about 40,000; of these about 2,000 are kept in the movable-frame hive, the balance in straw skeps.

Wintering is done very successfully in some of the old straw-skep hives. Many think the bees in the movable-frame hive do not winter as well, but such is not the case; on the contrary, the honey taken by means of the movable-frame hive is mostly extracted. On account of so few frame hives, and but little comb foundation being used, the average yield per colony for the country is not great, but he thinks if properly conducted it would be 70 pounds to 100 pounds per colony.

The chief sources of honey are clover, basswood, and heather. The clover is mostly Alsike; there is but little white.

Health and Home Library.—The first number of this periodical is on our desk. It contains 100 pages of the most interesting articles concerning *health* and *home* life. It should be read by every parent, and especially mothers. It is to be published quarterly at $1 a year, at Chicago, Ills.

COMMENDATIONS.

Clean as a New Pin.—Mr. Geo. E. Hilton, Fremont, Mich., expresses himself thus:

The first number of the AMERICAN BEE JOURNAL for the new year is at hand, bright, spicy and clean as a new pin, in its new attire. I want to congratulate you on the cut you have made of my apiary. It has been published several times in different forms, but I have not seen a picture that pleased me as well as the one you produced.

How Can it be Done?—Mr. J. M. Hicks, Battle Ground, Ind., on Jan. 12, 1888, wrote us as follows:

This morning finds me at home, but not very well. I am suffering from a severe cold; I hope to be out in a few days again. I see you are out on time with the good old reliable AMERICAN BEE JOURNAL. The great wonder to me is, how ON EARTH you can afford so good a journal, 52 times a year, for so little pay as $1? Yet I trust it pays you to do so.

Never Lost a Copy.—Mr. A. B. Bray, Bois D'Arc, Mo., on Jan. 9, 1888, writes thus:

When I opened the BEE JOURNAL for Jan. 4, 1888, I scarcely knew what it was; a change had been made in appearance from beginning to end. I do not see how you could have made such improvements every year since 1874 as you have. I have been taking the BEE JOURNAL for years, and I have yet my first paper to lose. I have received three times the value of the JOURNAL in information every year. It will richly repay any bee-keeper's faithful perusal.

Much Pleased.—Mr. Charles Solveson, of Nashotah, Wis., on Jan. 5, 1888, wrote thus of his surprise and pleasure upon receiving the first number of our paper for this year:

I have just received No. 1 of the AMERICAN BEE JOURNAL for 1888, and to say that I am pleased with its new appearance, is but stating it mildly; it appeared so clean and white that I involuntarily got up and washed my hands (they were not dirty) ere I allowed myself to feast on its many good things. May you long live to lead the fraternity in its progressive march!

Not Stuck Up!—Dr. A. B. Mason, of Auburndale, O., upon receiving the first number of the BEE JOURNAL for this year, wrote us as follows:

FRIEND NEWMAN:—What have you "been up to?" "What for have you gone and spoiled the old reliable AMERICAN BEE JOURNAL for?" I missed its old familiar face this week, but in its place came a "spic, span" new and fresh one, but "*awfully* stuck up." As it don't "slop over" as "stuck up" arrangements usually do, I guess I can get used to it. It looks nice with its new heading. You know it is "my first love" in the line of bee-periodicals. I began taking it when the lamented Samuel Wagner was its editor. I like the other bee-papers, but none of them can take its place. Its make-up and *matter* are very *good*.

QUERIES AND REPLIES.

DO SWARMS LEAVE HIVES WITH TWO QUEENS?

Written for the American Bee Journal

Query 506.—Is there such a thing as a swarm leaving a hive with two queens?—R.

Yes.—J. P. H. BROWN.

Yes.—W. Z. HUTCHINSON.

Yes, or a dozen.—C. C. MILLER.

Yes; I have known them to leave with 8, but there were none left in the hive.—A. B. MASON.

Yes; an after-swarm sometimes has 5 or 6.—MRS. L. HARRISON.

Yes, why not, if it happens to be an after-swarm?—EUGENE SECOR.

Yes. Nearly all swarms except the first have two or more queens.—M. MAHIN.

Yes, whether the querist means going with two queens or leaving two queens in the hive; it is not uncommon.—R. L. TAYLOR.

Yes; second and third swarms often have several queens. First swarms I believe never do.—C. H. DIBBERN.

Yes. You will often find second swarms with 2 queens; and with Syrians, 3 or more queens.—H. D. CUTTING.

Second swarms will often do so. I never saw a first swarm do so, unless it had been retarded until a young queen was ready to hatch, etc.—P. L. VIALLON.

Yes, with as high as 12 to 20, and often from 2 to 5.—G. M. DOOLITTLE.

Certainly there is. After-swarms or first swarms that leave the hive with young, unfertile queens, often have two or perhaps a dozen queens each.—JAMES HEDDON.

The question has two meanings, and we would answer yes to both. Both the swarm and the old colony may have 2 queens.—DADANT & SON.

Yes, with 4 or 5. This is never true of first swarms, but frequently it is true of after swarms.—A. J. COOK.

From one to half-a-dozen virgin queens may go out with a swarm, but I have never known two laying queens to lead a swarm.—G. L. TINKER.

I never heard of such a case. This is one of those theoretical questions that no one can answer without an experience of the kind mentioned.—J. E. POND.

I do not know that I catch the idea that was in your mind when you wrote the query. If you mean a prime or *first* swarm, there is never but one queen with them, unless another queen happens to be in the air at the time and joins the swarm. It is possible for a swarm to be delayed by rainy weather until the first young queen hatches, in which case she might go with the swarm if she was old enough to fly. This would give the swarm 2 queens—the mother and her virgin daughter. I have seen this state of things once or twice. In case an old queen is superseded, or dies just before a prime swarm was to issue, there will be delay until several of the young queens hatch; and when the swarm issues, there may be more than one queen with the swarm. I have seen a half dozen or more virgin queens with an "after swarm."—G. W. DEMAREE.

The old queen goes with the first swarm—that swarm will have but one accompanying queen; but with "after-swarms" (either second or third) there are often more than one, and sometimes several young queens.—THE EDITOR.

THE CAUSE OF ABNORMAL SWARMING.

Written for the American Bee Journal

Query 507.—What would be the cause of a colony leaving a hive early in the spring, with plenty of honey in store, and otherwise all right?—N.

Too few bees.—J. P. H. BROWN.

I do not know. Possibly old bees have died off, leaving more brood than can be covered.—C. C. MILLER.

I could not give a correct reply unless I knew more about the circumstances.—H. D. CUTTING.

Weak colonies sometimes "swarm out" in the spring, when everything is apparently all right.—W. Z. HUTCHINSON.

Lack of pollen. There might be other causes, but then they would not be, as in the question, "all right."—DADANT & SON.

It is unknown to me. I have had several do so during my 18 years' experience.—G. M. DOOLITTLE.

I never had such a case. I do not think that we have such a case in the South.—P. L. VIALLON.

If there are plenty of stores, "and otherwise all right," it would *not* leave. Something is wrong when it leaves.—A. B. MASON.

If they are "otherwise all right," I do not believe they *will* desert the hive. They do so because something is wrong.—EUGENE SECOR.

I do not think that they leave when "otherwise all right." This is proof that they are not all right. There is likely some hidden cause, probably not understood.—MRS. L. HARRISON.

When a colony of bees having plenty of honey leaves the hive early in the spring, it is not "otherwise all right." Generally only small colonies desert the hive, and those that are more or less diseased.—M. MAHIN.

Taking the statement literally, there would be no cause; but bees sometimes vacate their hive on account of discontent, arising from some inscrutable cause.—R. L. TAYLOR.

Sometimes a colony will leave when it is hopelessly weak, and other bees commence robbing them. In case of a strong colony deserting thus, there is some dissatisfaction either with the stores, the hive, or the surroundings.—C. H. DIBBERN.

I should say all is not right. There must be something amiss, even though not patent to the bee-keeper.—A. J. COOK.

A colony will never leave the hive in the spring, if *everything* is all right. The hive and its contents, all but the bees, may be all right, and yet they leave; but in that case the bees are diseased. Such things usually result from the notorious bee-diarrhea.—JAMES HEDDON.

The most common cause is too few bees. If weak colonies are placed in warm quarters on cool nights in the spring, I think that it would be rare to have them swarm out with plenty of honey in store.—G. L. TINKER.

I cannot imagine such a case. If querists would state actual occurrences, with all the facts connected therewith, answers of value could be given thereto. To cause a colony to leave, something *must* be wrong.—J. E. POND.

In the early spring there are but few young bees in the hive; and when the bees take a general flight, as they frequently do on warm days in the spring, the queen finds herself nearly deserted, and under her excitement she takes wing with the frolicking workers. Generally they return all right, but if the excitement runs high on account of the presence of the queen in the aerial flight, it results in a case of "swarming out." This state of things becomes habitual with some weak colonies in early spring, and sometimes in the fall. The remedy is, to put a queen-excluder over the entrance of the hive; this will prevent the queen from taking wing when the workers take an airing. The above is the "cause," though there may be exceptions to the rule, as in most other rules.—G. W. DEMAREE.

If bees leave their hive in a body in the spring-time it shows that they are dissatisfied with something in the hive, or its surroundings, or else the bees are diseased. They often leave

when short of stores, or lacking in bees.—THE EDITOR.

COLONIES BUILDING UP IN REVERSIBLE HIVES.

Written for the American Bee Journal

Query 508.—Will bees build up as strong in numbers by the use of sectional brood-chambers of the Heddon reversible pattern, as they will upon combs of as large size as the Simplicity or Quinby pattern?—H.

Most certainly.—W. Z. HUTCHINSON.

I should not expect much difference.—C. C. MILLER.

I think that there is no doubt of it.—A. J. COOK.

I think so, but my experience is limited.—G. M. DOOLITTLE.

Yes, if proper care is given them.—A. B. MASON.

I think there will be little if any difference.—M. MAHIN.

I have had no experience, but I think that they will.—MRS. L. HARRISON.

I do not know, as I have never used a Heddon hive, but I do not think there would be much difference.—C. H. DIBBERN.

If you give them sectional brood-chambers as they require, I have no doubt that they will.—P. L. VIALLON.

I do not know. I have never used the Heddon hive; only by experiments can the matter be proved.—J. E. POND.

As this is a hot question, we would say, try it with 2 or 3 colonies. We have tried it, and do not want any sectional hives.—DADANT & SON.

They will build up as strong, but not so soon. However, if the hives are packed in chaff, the difference is not great.—G. L. TINKER.

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I object to all cross sticks, or objects of like nature in frames. I prefer a regular Langstroth frame.—J. P. H. BROWN.

Yes, sir. The past season I had one colony in the new Heddon hive that produced of comb honey five times the average of my apiary, and about twice as much as the best of my colonies on Simplicity frames, and it was because of their numbers that they did it.—R. L. TAYLOR.

That would depend upon the management. If 10 frames were left in the Simplicity, or an equal space in any other hive in the spring, they ought to build up faster in the Heddon sectional brood-chamber if only one were used at first, because that is contraction. Contraction can be practiced with any hive. Therefore answering the query in one word, *yes*.—EUGENE SECOR.

Yes, faster. I am now answering from four years' experience. With the new hive, with the divisible brood-chamber, in two sections, bees breed up stronger and earlier, and finally produce more in the same capacity, than can be obtained in any other style of brood-chamber, provided the same is properly manipulated. No style of brood-chamber is its superior, if the divisible brood-chamber is not manipulated at all.—JAMES HEDDON.

I have used the half-depth-frame cases for over eight years, and I have used them for all purposes. When used for brood-rearing in this climate where the springs are early and changeable, the colonies in them do not breed up rapidly like they do when in the standard Langstroth hives. But when the weather becomes warm, there is little difference to be seen in the amount of brood reared. The shallow sectional-frame cases are at their *best* when used for the purposes for which they were first devised, viz: to take honey on the tiering-up plan.—G. W. DEMAREE.

With judicious management, we do not think that there will be much difference.—THE EDITOR.

CORRESPONDENCE.

BROOD-FRAMES.

Deep Frames vs. Shallow Ones, and Sectional Hives.

Written for the American Bee Journal

BY W. J. CULLINAN.

This afternoon, as I was enjoying the New-Year holiday (by "minding the baby" while my wife went shopping), I thought that I could not better improve the spare time than by writing to my favorite bee-paper; and suiting the action to the thought, I will begin.

About ten weeks ago I tore myself from the town of my birth and the scenes of my youth, and hied me to this great "Chicago of the southwest," better known as Kansas City.

I left home with the intention of going to California, and may still reach that "land of sun and flowers," if the accounts I get of fleas, poison-oaks and hostile reptiles of the sea do not cause my courage to fail me. Let this suffice as a preface, for I started out to answer an article on page 804 of the AMERICAN BEE JOURNAL for 1887, wherein Mr. J. M. Hambaugh enters "a plea for large frames."

It is well enough to analyze and discuss every phase of apiculture, and when we have stumbled upon anything (be it new or old) that will facilitate the labors, or add to the profits of bee-keeping, lay it before the great brotherhood and sisterhood, who in the pursuit of this noble calling are yearly adding to our national wealth, and contributing to the comfort, health, happiness and luxury of their fellowmen. Mr. Hambaugh does not claim that he has anything new to offer in the shape of a hive, but is simply commending that which is old, or giving his preference, as it were.

Mr. H. says, that in transferring bees "from nail-kegs, log-hives, bee-trees, etc., he has found the same principle to govern all, *i. e.*, large, deep, roomy combs, with stores above, brood beneath, and combs spaced from 1½ to 2 inches from centre to centre." I would ask, did he not find those combs of all shapes and sizes, made, and shaped more with a view to filling the repository in which they were built, than to honor any whim or requirement of the queen-mother? For it is well known that bees in their wild or natural state inhabit caves, built under ledges of rocks, in the sides of houses, in chimney-flues, and in all manner of places, and as they show an utter abhorrence to a vacuum (when they have honey to fill it), they always fill the particular space, be it round, square or oblong, thus forcing the queen to deviate from her characteristic circular movements, suiting them to her particular surroundings. I have frequently seen Langstroth frames filled completely full of brood; and again, I have seen a patch of eggs in one corner of a frame, while the other three were empty—showing that the queen does not always move in a circuit, but readily adapts herself to her surroundings.

The Quinby frame, which is the frame Mr. H. alludes to, is too large and unwieldly for extracting, as well as slower of manipulation at all times. I think that Mr. H. forgets himself when he says, "We should imitate nature in the construction of our hives." Does he go to an old hollow-tree or cave for measurements when he wishes to begin the construction of his Simpicity or Quinby hives? No; he will consult his table of measurements on paper, which, by the way, contain not one single feature of the hollow-tree intact. He and others have changed, altered and improved upon the pioneer homes of the honey-bee to such an extent that the one resembles the other only in the form and construction of

QUERIES AND REPLIES.

DO SWARMS LEAVE HIVES WITH TWO QUEENS?

Written for the American Bee Journal

Query 506.—Is there such a thing as a swarm leaving a hive with two queens?—R.

Yes.—J. P. H. BROWN.

Yes.—W. Z. HUTCHINSON.

Yes, or a dozen.—C. C. MILLER.

Yes; I have known them to leave with 8, but there were none left in the hive.—A. B. MASON.

Yes; an after-swarm sometimes has 5 or 6.—MRS. L. HARRISON.

Yes, why not, if it happens to be an after-swarm?—EUGENE SECOR.

Yes. Nearly all swarms except the first have two or more queens.—M. MAHIN.

Yes, whether the querist means going with two queens or leaving two queens in the hive; it is not uncommon.—R. L. TAYLOR.

Yes; second and third swarms often have several queens. First swarms I believe never do.—C. H. DIBBERN.

Yes. You will often find second swarms with 2 queens; and with Syrians, 3 or more queens.—H. D. CUTTING.

Second swarms will often do so. I never saw a first swarm do so, unless it had been retarded until a young queen was ready to hatch, etc.—P. L. VIALLON.

Yes, with as high as 12 to 20, and often from 2 to 5.—G. M. DOOLITTLE.

Certainly there is. After-swarms or first swarms that leave the hive with young, unfertile queens, often have two or perhaps a dozen queens each.—JAMES HEDDON.

The question has two meanings, and we would answer yes to both. Both the swarm and the old colony may have 2 queens.—DADANT & SON.

Yes, with 4 or 5. This is never true of first swarms, but frequently it is true of after swarms.—A. J. COOK.

From one to half-a-dozen virgin queens may go out with a swarm, but I have never known two laying queens to lead a swarm.—G. L. TINKER.

I never heard of such a case. This is one of those theoretical questions that no one can answer without an experience of the kind mentioned.—J. E. POND.

I do not know that I catch the idea that was in your mind when you wrote the query. If you mean a prime or *first* swarm, there is never but one queen with them, unless another queen happens to be in the air at the time and joins the swarm. It is possible for a swarm to be delayed by rainy weather until the first young queen hatches, in which case she might go with the swarm if she was old enough to fly. This would give the swarm 2 queens—the mother and her virgin daughter. I have seen this state of things once or twice. In case an old queen is superseded, or dies just before a prime swarm was to issue, there will be delay until several of the young queens hatch; and when the swarm issues, there may be more than one queen with the swarm. I have seen a half dozen or more virgin queens with an "after swarm."—G. W. DEMAREE.

The old queen goes with the first swarm—that swarm will have but one accompanying queen; but with "after-swarms" (either second or third) there are often more than one, and sometimes several young queens.—THE EDITOR.

THE CAUSE OF ABNORMAL SWARMING.

Written for the American Bee Journal

Query 507.—What would be the cause of a colony leaving a hive early in the spring, with plenty of honey in store, and otherwise all right?—N.

Too few bees.—J. P. H. BROWN.

I do not know. Possibly old bees have died off, leaving more brood than can be covered.—C. C. MILLER.

I could not give a correct reply unless I knew more about the circumstances.—H. D. CUTTING.

Weak colonies sometimes "swarm out" in the spring, when everything is apparently all right.—W. Z. HUTCHINSON.

Lack of pollen. There might be other causes, but then they would not be, as in the question, "all right."—DADANT & SON.

It is unknown to me. I have had several do so during my 18 years' experience.—G. M. DOOLITTLE.

I never had such a case. I do not think that we have such a case in the South.—P. L. VIALLON.

If there are plenty of stores, "and otherwise all right," it would *not* leave. Something is wrong when it leaves.—A. B. MASON.

If they are "otherwise all right," I do not believe they *will* desert the hive. They do so because something is wrong.—EUGENE SECOR.

I do not think that they leave when "otherwise all right." This is proof that they are not all right. There is likely some hidden cause, probably not understood.—MRS. L. HARRISON.

When a colony of bees having plenty of honey leaves the hive early in the spring, it is not "otherwise all right." Generally only small colonies desert the hive, and those that are more or less diseased.—M. MAHIN.

Taking the statement literally, there would be no cause; but bees sometimes vacate their hive on account of discontent, arising from some inscrutable cause.—R. L. TAYLOR.

Sometimes a colony will leave when it is hopelessly weak, and other bees commence robbing them. In case of a strong colony deserting thus, there is some dissatisfaction either with the stores, the hive, or the surroundings.—C. H. DIBBERN.

I should say all is not right. There must be something amiss, even though not patent to the bee-keeper.—A. J. COOK.

A colony will never leave the hive in the spring, if *everything* is all right. The hive and its contents, all but the bees, may be all right, and yet they leave; but in that case the bees are diseased. Such things usually result from the notorious bee-diarrhea.—JAMES HEDDON.

The most common cause is too few bees. If weak colonies are placed in warm quarters on cool nights in the spring, I think that it would be rare to have them swarm out with plenty of honey in store.—G. L. TINKER.

I cannot imagine such a case. If querists would state actual occurrences, with all the facts connected therewith, answers of value could be given thereto. To cause a colony to leave, something *must* be wrong.—J. E. POND.

In the early spring there are but few young bees in the hive; and when the bees take a general flight, as they frequently do on warm days in the spring, the queen finds herself nearly deserted, and under her excitement she takes wing with the frolicking workers. Generally they return all right, but if the excitement runs high on account of the presence of the queen in the aerial flight, it results in a case of "swarming out." This state of things becomes habitual with some weak colonies in early spring, and sometimes in the fall. The remedy is, to put a queen-excluder over the entrance of the hive; this will prevent the queen from taking wing when the workers take an airing. The above is the "cause," though there may be exceptions to the rule, as in most other rules.—G. W. DEMAREE.

If bees leave their hive in a body in the spring-time it shows that they are dissatisfied with something in the hive, or its surroundings, or else the bees are diseased. They often leave

when short of stores, or lacking in bees.—THE EDITOR.

COLONIES BUILDING UP IN REVERSIBLE HIVES.

Written for the American Bee Journal

Query 508.—Will bees build up as strong in numbers by the use of sectional brood-chambers of the Heddon reversible pattern, as they will upon combs of as large size as the Simplicity or Quinby pattern?—H.

Most certainly.—W. Z. HUTCHINSON.

I should not expect much difference.—C. C. MILLER.

I think that there is no doubt of it.—A. J. COOK.

I think so, but my experience is limited.—G. M. DOOLITTLE.

Yes, if proper care is given them.—A. B. MASON.

I think there will be little if any difference.—M. MAHIN.

I have had no experience, but I think that they will.—MRS. L. HARRISON.

I do not know, as I have never used a Heddon hive, but I do not think there would be much difference.—C. H. DIBBERN.

If you give them sectional brood-chambers as they require, I have no doubt that they will.—P. L. VIALLON.

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the cells; and had we the power, we would doubtless have changed these.

As to the queen losing time in "passing over bars and bee-spaces," etc., I think amounts to nothing; for any one who knows anything about the inside workings of the bee-hive, knows that when the queen begins her work of reproduction, her starting-point is the centre of one of the central combs—be they large or small; here she deposits in the neighborhood of a dozen eggs, then passing to the other side of the comb, she deposits a like number; then passing back she enlarges upon the first, and so on until she has a patch of eggs as large as a man's hand, when she begins depositing in the adjoining frames successively, then back to the centre, and so on, taking in more territory at the side as she enlarges her circle in the centre, thus keeping her bunch of brood nearly in the form of a globe—this, of course, being done to accord with a natural instinct or trait of the bees to cluster in a ball, so that in the event of cool weather the brood is all well protected and kept from chilling.

Now it is but reasonable to suppose that if we have large, deep frames, as Mr. H. suggests, the queen will lose a great deal more time in passing from side to side, and from frame to frame, than if the frames are shallow, or have horizontal bee-spaces in the centre. And by this line of reasoning I contend that horizontal bars and bee-spaces, instead of being detrimental and forming an obstruction to the movements of the queen, facilitate the same and become a help. If I were to tolerate large, deep frames, such as the Quinby, at all, it would be in the brood-chamber only, with a shallow-frame above for extracting, *al a* Dadant, or a single-tier crate for comb honey. But this I do not consider feasible in the production of extracted honey, for the combs are not interchangeable, which I believe to be an important aid in forcing the bees upward in the fore-part of the season.

Then again, in the production of comb honey I believe the contraction of the brood-nest to be essential to the best success. I consider it a great advantage to have the brood distributed over the whole under-surface of the surplus cases—a condition which can only be secured by dividing the brood-chamber horizontally, by the use of the shallow brood-frame.

Mr. H. is running his apiaries nearly altogether for extracted honey, and for this purpose his large and deep brood-chamber hives may answer very well; but should he turn his attention to the production of comb honey, he would soon adopt a frame much shallower than the Quinby, if not a horizontally-divisible brood-chamber.

However, I should be pleased to hear from such as have used the sectional brood-chamber hive in the production of either comb or extracted honey, and with what success. Mr. Heddon might favor us with an account of his successes with the sectional brood-chamber hive; for if they *do* possess advantages over other hives, I am sure that all, like Mr. H., would like to know it.

Kansas City, Mo.

FUMIGATION.

Report for 1887, Fumigating Combs and Poisoning Bees.

Written for the American Bee Journal
BY P. LATTNER.

The last was the poorest honey season that I have experienced in 28 years. I lost 50 per cent. of my bees last winter, by their having honey-dew, or bug-juice, for winter stores; all that had none, or did not live on that stuff, wintered well.

I commenced the season with 49 colonies, spring count. Four swarms issued, but one of them left after being hived. I increased my apiary to 80 colonies, by the nucleus method, and took 1,200 pounds of extracted honey. This was the result of having plenty of combs.

We had good fall pasturage, and all the bees were put into winter quarters in good condition. One-half of them are on the summer stands in chaff hives, and the other half are in a bee-cellar under the bee-house. The cellar is 16x22 feet, and 6½ feet high, with the ceiling lathed and plastered, the floor cemented, ventilation from the floor into the chimney, opposite the entrance, and a stove to regulate the temperature completes the cellar.

Fumigating Empty Combs and Honey.

I use the stove in summer to fumigate empty and full surplus combs. It is placed in the bee-house, in one corner, which is partitioned off and arranged right above the stove for that purpose. One-half pound of pulverized brimstone, saturated with alcohol, is placed in an iron kettle inside of the stove, with the stove-pipe directed toward the combs; then a lighted match is dropped into the kettle, and the work is done.

About Poisoning the Bees.

I was glad that the editor reprimanded the correspondent of the *Messenger*, at Atlantic, Iowa, in the BEE JOURNAL of Dec. 21, 1887; but I am sorry that the good State of Iowa has among her people such a villain. I think that the public would be more benefited by feeding such an ignorant, dastardly adviser on the same stuff that he recommends for the destruction of the honey-bee. That article contains ignorance, falsehood and malice combined.

Worthington, Iowa, Dec. 24, 1887.

BEES AND FRUIT.

The Mistaken Idea that Bees Injure Fruit.

Written for the American Bee Journal
BY ALLEN BARTOW.

I have just read, on page 803 of the BEE JOURNAL for 1887, an article in regard to poisoning bees, being a few quotations from a paper called the *Messenger*, which asserts that there has been great destruction of grapes here by bees. Now that is not the fact. That bees do not injure sound grapes, or fruit of any kind, is admitted by all intelligent fruit-growers and bee-keepers. But some years ago it was thought that bees did injure fruit, but thanks to Prof. Cook for dispelling that mistaken idea from the minds of both parties on that question. It came about in this wise:

We had an agricultural meeting at Sandusky, O., and Prof. Cook attended and lectured on entomology, and the anatomy of the bee was part of his subject. At the close of his lecture the Professor was subpœnaed, and gave evidence in a case then being tried in the County Court at Sandusky, and the writer heard him being catechised for about two hours by four lawyers. He made it plain that bees could not puncture sound fruit—so plain that the suits were withdrawn. The facts were as follows:

The bees were poisoned by one party, in the vineyard, and the party owning the bees traced the poison, by following the bees from the hives to the vineyard, when he found great numbers on the route, dead and falling all the way from the hive entrances to the poison in the vineyard. The owner of the bees sued the grape-grower, and the latter brought counter suit for damages done to grapes.

Now the point I wish to make is this: It caused both bee-keepers and fruit-men to investigate, and they found that the facts exonerated the bees from blame. We found other causes that opened the fruit. First, grapes when over-ripe will crack open; again, birds and other insects destroy them. We have a small bird about the size of a brown ground-bird, that gets on a bunch of grapes, and pecks them open as fast as one could count.

This bird did not seem to eat the grapes, but simply tore the skins open. I then shot the birds, and as some grapes were fully ripe, I gathered the remaining sound grapes and left those that were opened, on the vines. The bees of course sucked these dry. But the strange part is, the same birds (the live ones of the same kind), came and ate the seeds of the dry grapes that remained on the vines.

I venture to say, that whoever will spend the same time in investigation, that he does in blaming, will be satisfied that the bees are innocent of opening fruit.

Milan, ♁ O.

BEE-CELLAR.

How to Build a Good Cellar for Bees or Kitchen Use.

Written for the Western Plowman
BY C. H. DIBBERN.

Not only is a cellar a good thing for the bee-keeper and farmer, but with many an absolute necessity. Now by a cellar I do not mean a hole in the ground under the house, filled with decaying vegetables. I maintain that the cellar should be the "best room in the house," as well as the most useful. To build a cellar right requires a good deal of care and expense. The bottom should be cemented with a hard cement that will not sweep off and crumble away. The walls should be back-lathed, and plastered with cement. If it is plastered directly on the wall it is apt to "sweat" in the spring and become moldy. The ceiling should also be plastered with cement at least an inch thick. Windows should be made on opposite sides so as to allow a free circulation of air. If bees are to be wintered there, it should be divided by a partition into two parts, so as to keep them entirely apart from the vegetables. There should be at least two general clearing outs of the cellar, in the spring and fall, when the walls, floor and all should be thoroughly whitewashed. The boxes, barrels, etc., that have been in the cellar, should be exposed for a few days to the sun and air at such times. Now if ordinary care is used in the meantime to keep everything clean and sweet, and ventilated as much as possible, my word for it, such a cellar is a blessing.

Snow Around the Hives.

"In wintering out-of-doors is it necessary to sweep the snow from the top and front of the hive?" No. It is often an advantage to leave it on, and even in front of the entrance to keep the bees from flying and getting lost in a light snow. Should the snow, however, become deep, I think it advisable to shovel the snow from the front and open the entrance.

Milan, ♁ Ills.

ALSIKE CLOVER.

How to Induce Neighboring Farmers to Plant it.

Written for the American Bee Journal
BY M. M. BALDRIDGE.

Joshua Bull, one of the delegates to the last Inter-National meeting of bee-keepers in Chicago, informs me that he succeeded very nicely last spring in securing the distribution of about 15 bushels of Alsike clover seed, among his neighbors; by simply leaving with a local dealer a small package of

Alsike Clover Root and Crown, average size, a year old. *Red Clover Root and Crown, average size, a year old.*

Alsike Clover Leaflets, obtained through the office of the AMERICAN BEE JOURNAL, with instructions to place them in the hands of parties who came to him after grass-seed. He thought it better to do thus than to distribute the Leaflets himself, lest his being interested in honey-production might create the impression that he was personally interested in the sale of the seed, or otherwise; that is, speaking "one word for his neighbor and two for himself!"

As non-producers of honey are often both jealous and suspicious of the bee-keeping fraternity, the plan pursued by Mr. Bull may be just the one for others to adopt, and so I thought it best, thus early, to call *special* attention to it. But I will now suggest another plan which I know will also be a success, and will, as must be obvious, have its advantages:

Besides supplying all local dealers in grass-seeds with the Leaflets, just drop one in the Post-office, in a *sealed* envelope, to each and every farmer living within a radius of three miles of your apiary, and do this the present winter, and before the general time for sowing grass-seeds, *and in the quietest manner possible!* This plan will give the farmers, who really should be the parties most interested, ample opportunity to study the subject, through inquiries and otherwise; and then, when they have occasion to visit the grass-seed dealers, they will be better prepared to decide what they should and ought to do.

If we can induce the farmers to grow Alsike, mixed with other grasses, we will then solve the problem of good bee-pasturage, and an abundance of it; and, besides, we will be doing to the farmers, as well as ourselves, an immense amount of good. For my part I would rather have *one* acre of Alsike clover, mixed with timothy and red clover, and within bee-flight of my apiary, than the best *ten* acres of the common white I ever saw; and so will others when they give the mixing plan I advise a fair and extensive trial. Alsike will, when mixed as stated, never disappoint the farmer, nor the apiarist, in case its partnership neighbors make a satisfactory growth; for it is a fact, though not generally known, that Alsike will do well wherever and whenever the common red can be grown with success. Try it, ye doubting Thomases, and then report.

St. Charles, ♁ Ills.

BEES IN COLORADO.

Experience in Bee-Keeping in Colorado—Alfalfa, etc.

Written for the American Bee Journal
BY DANIEL WESTOVER.

I have read Mary A. Goodale's communication on page 792 of the BEE JOURNAL for 1887, and in reply to her questions I will give my experience of three years.

I started with 3 colonies, and have sold $100 worth of bees, and over 1,000 pounds of comb honey the past fall. I sold some bees the past season at $8 per colony. I have wintered my bees on the summer stands for three winters without any loss; and I now have packed in chaff 45 colonies in good condition. They had a splendid flight to-day. Here they have two or three cleansing flights during the win-

ter months, and they are not troubled by moths or diarrhea.

Alfalfa is being raised here in abundance, and is considered splendid bee-food. There are but few bees in the southern portion of the State as yet, but I am sure that they would do well there. I am located on the Platte river, 47 miles from Denver, and four miles from Greeley. I have never sold first-class comb honey for less than 20 cents per pound.

It would not pay to ship bees from Indiana to Colorado. The Italians take the lead here, as compared with any other race of bees. I kept bees in Indiana 30 years ago, when we sawed off hollow-logs, bored holes and drove cross-pins in them, and stood them up on a puncheon. They then were considered second to none, as were also the black bees that we handled without a smoker or veil.

Evans, ♂ Colo.

CAVE-WINTERING.

The Drouth Causes Poor Results —A Cave for Bees in Winter.

Written for the American Bee Journal
BY P. L. GIBSON.

My bee and honey report for 1887 is as follows: I put 40 colonies in the cellar on Dec. 8, 1886, and took them out on March 8, 1887, all being in fine condition. They stored a little honey in June, from white clover, but consumed it all and the greater part of their stores by July 15.

As we had no rain in June and July, the result was that from 40 colonies I received no surplus honey, no swarms, and lost by starvation 10 of my old colonies, and 5 more will have to be fed in order to survive the winter. I am not discouraged, however, for I have the beggar's consolation, namely, "There are many more in the same fix;" but I still hope for better returns the coming summer.

Wintering Bees in Caves.

I am a strong advocate of cellar-wintering of bees, and I would winter them in this way if I had to make a new cellar or cave every year. My present depository is a cave, dug 4 feet deep, with posts set around the sides 7 feet above the bottom of the cave. This is sided and covered with puncheons split from green oak timber, A passage-way 3 feet wide and 4 feet long is lined and covered with the same material. This passage-way admits of two doors, one on the inside, and one on the outside of the cave when needed. The total cost of the whole was 3 days' work.

I remove the caps, sections, and honey-boards from the hives, and place any kind of a cloth over the brood-chamber, and then tier them up, with one-inch strips between them. In this way I never lose any bees, by keeping the cave dry, and at a temperature of 42°. I find the BEE JOURNAL a great help, and a welcome visitor. Every one having a colony of bees, or expecting to get a colony, should read it.

Illinois City, ☼ Ills., Dec. 30, 1887.

DISCUSSION.

Some Questions which all are Invited to Answer.

Written for the American Bee Journal
BY C. P. HEWETT.

1. How many keep a daily record of the temperature and degrees which they prefer in their depositories?
2. How many believe in hibernation?
3. How many can winter colonies on from 3 to 6 pounds of stores?
4. How many have had bees steal eggs, and from them make queens?
5. How many have had queens fertilized that did not leave the hive?
6. How many have had queens become re-fertilized?
7. How many have had queens die with the drones, on their bridal trip?
8. How many have had bees hibernate, and remain so until taken out in the spring?
9. How many can tell that they have a queenless colony in their apiaries, by seeing bees trying to steal eggs, before they notice the colony which is queenless?
10. How many know that there is no vitalization in some queens' eggs, when they first commence laying in the spring, and the bees have no regard for her, more than any other bee, and swarm out?

The above questions are open to all.

Kingston, ⊙ Wis.

STARTERS.

How I Fasten Foundation in Grooved Sections.

Written for the American Bee Journal
BY HENRY W. HAAG.

It seems from Mr. Fox's remarks on page 823 of the BEE JOURNAL for 1887, that his is the only satisfactory method for fastening foundation in sections. I have tried several methods, and I find none that suits me but the following:

I use only grooved sections, and cut the starters ½-inch shorter than the section is wide, and about 1½ inches deep. Then I put the section on a table, with the grooved side down, take a starter in my left hand, insert it in the groove, and then run melted beeswax along the side of the starter, which holds it securely; no matter how many bees get on the foundation, it will not drop off.

I formerly used Mr. Fox's method, but I did not like it, as so many starters dropped off; and then they would ruin some honey by causing the bees to build the combs crooked.

I would not have sections without grooves for foundation, for in any other it cannot be securely fastened. Not one starter in five hundred will drop off if the above plan is used, and the sections are grooved.

Pettit, ☼ Ind.

WINTERING.

Results of the Season, and How I Winter my Bees.

Written for the American Bee Journal
BY E. HENKLE.

I started last May with 44 colonies of bees, two-thirds of them being in splendid condition. I lost 4 colonies during the summer, by moths getting the advantage of them before I discovered it. I had one swarm, which leaves me with 41 at present, and not a pound of surplus honey.

On Sept. 1, I found one-third of them nearly starving. I bought $20 worth of sugar, and fed it to them, which fixed them up nicely for winter. They are all well packed on the summer stands, with cushions of chaff and forest-leaves on top and around them. I use the Mitchell hive, in which the frames hang crosswise, with two division-boards, one at each end. I place the bees in the centre on eight frames in winter, and put one cushion at each end and one on top. I have always wintered my bees very successfully in that way. I never allow snow or sleet to fall on the hives. I have three sheds that are 50 feet long and 6 feet wide, boarded up on the back to keep off the cold winds.

I do not think that I am in a very good part of the State for bee-keeping. I have never been able to get more than from 25 to 40 pounds of honey per colony. We have to depend entirely upon white clover for surplus. There is no basswood within five miles of this place. I have about half an acre of sweet clover; but what is half an acre of sweet clover for 40 colonies of bees? But I have been sowing considerable more this fall, and will sow more next fall, so as to let it take the place of basswood.

Washington C. H., ♀ O., Dec. 23, 1887

BEES AND GRAPES.

Another Proof that Bees do not Puncture Grapes.

Written for the American Bee Journal
BY H. W. LACY.

On page 805 of the BEE JOURNAL for 1887, I saw a statement supposed to be made by Secretary Garfield, wherein he states that the Secretary of the Eaton County Horticultural Society said that there is no use talking, bees do open grapes, and that he has seen them where there was no crack or anything of the kind. I, for one, flatly and positively contradict that statement. I am willing to bet five of the best queens in my apiary, that no Italian bee ever punctured a sound grape-skin. I tried it the last season in different ways, for my own benefit, as I have heard it discussed by different ones, and as some of my neighbors thought that their crop of grapes would be small on account of my bees.

As I have quite a large vineyard of my own, with some twelve different kinds of grapes, I placed 6 colonies amongst them in such a way that the bees were all amongst the grapes; in fact it was hard work to open the hives, as the fruit hung so clustered about them, and right before the entrances of three of the hives. I had large clusters of grapes hang in such a way that the bees had to work around them to get in and out of the hives. I do not think that there was one grape injured by a bee. Then on the nearest bunches I caused a small scratch to be made with a pin, just through the skin on a few of the grapes, and they were immediately sucked out by the bees. Therefore, I say that a bee will not injure grapes unless the skin is first cracked in some other way.

Results of the Past Season.

The past season was the poorest that I ever experienced in bee-keeping; yet I think that my bees did as well as any in this State. I commenced the season with 27 colonies, spring count, in a fair condition. I sold 12 colonies, and had one colony stolen. I bought 14, had 9 swarms, and then doubled-up my number of colonies to 30, which I put into winter quarters. I had 103 pounds of comb honey, and 227 pounds of extracted.

To those colonies which I thought had not enough for winter stores, I fed some granulated sugar, and so far they seem to be doing well. Up to Dec. 20 there had not been more that five days that they were not on the wing. I winter my bees packed on the summer stands in chaff hives.

Mansfield, Mass., Dec. 30, 1887.

WATER.

The Bees Need Water for Winter Use.

Written for the American Bee Journal
BY T. S. BULL.

Having a colony of bees in my cellar that showed signs of uneasiness and wanting to fly out whenever the door was opened, and Dec. 18, 1887, being a warm day, I decided to carry them out and put them on the summer stand. By the time I had them on the stand, there was a good many bees on the alighting-board. They had not been on the ground (I had placed them on the ground) a minute, before they were crawling out on the ground and sipping water. They did not all fly. They crawled until they came to water.

I wet a cloth and laid it on the alighting-board, and it was soon covered with bees. There was no sign of any disease whatever. There was no brood in the hive. They were as healthy as bees in June. Now that was conclusive evidence, to my mind at least, that that colony wanted water at that time. I came to the same conclusion a number of years ago. I have given the bees water in the cellar a number of times, in years past, in order to keep them quiet. The front end of the hives have been covered with bees in the cellar sipping water. I never saw any bad effect from it.

I never give the bees any water in the cellar before February or March. I put them into the cellar on Nov. 10 to Nov. 14. The mercury is from 50° to 52°. My cellar is very dry. The next day I removed them in the cellar, but before putting them back, I poured about a gill of water in a division-board feeder that was next to the cluster, on Jan. 2, 1888. I examined them to-day, and the feeder was dry. I never saw bees more quiet than they are. I also gave them some more water.

Valparaiso, Ind., Jan. 7, 1888.

BEES AND BIRDS.

Shoot the Birds, and the Bees will not be Blamed.

Written for the American Bee Journal
BY O. B. BARROWS.

I live within four blocks of the business centre of a town containing about 9,000 people, and I have five rows of Concord grape-vines, each row being about 70 feet long, and about 6 feet apart. Between these rows of grape-vines I keep from 50 to 100 colonies of bees—usually about 80 colonies—which makes them quite crowded, and in many cases the vines hang down on the hives. These vines bear grapes which ripen, and some of them frequently hang on until they are spoiled by freezing, and yet I very seldom see bees on the grapes; while at the outskirts of the town they complain of their grape crop being almost entirely destroyed by bees.

One of these grape-growers complained to a friend of mine, about it, and for a joke he told the man that they were Barrows' bees, and that he had them trained so that they would not touch a grape at home. I confess that I was puzzled about it, but upon appealing to another friend who raises grapes, but not bees, he said that where I lived a certain kind of bird did not frequent, that did frequent the other place, and that when the bees commenced on his grapes, he shot three or four of the birds, and the bees immediately stopped eating the grapes.

Marshalltown, Iowa.

[The bees are blamed wrongfully as well as persistently by those who will not think and experiment, and thereby be convinced. Birds, wasps and insects do the damage in every instance, and yet the poor bees are almost universally blamed for all the depredations. Why not be fair and reasonable, and do justice to the bees?—ED.]

FOUL BROOD.

Keeping Bees in Texas, and Treating Foul Brood.

Written for the American Bee Journal
BY C. M. DAVIS.

I take great pleasure in reading the BEE JOURNAL. Bees have done fairly well in northern Texas the past season. I have been keeping a few colonies in this thriving city for three years, and the past season was the first that I have received a profit from them. I made about enough to pay for all previous expenses, and I think that if my bees had not been troubled with foul brood, I might have had much better results.

In the spring of 1886 I found that all of my bees had the foul brood. I tried phenol, but failed to cure it; after which I cleansed the hives, etc., and transferred all, which seemed to get rid of the disease, and they seemed to be all healthy last spring. But to my surprise, the last of July I found every colony affected, and very weak in bees. Some swarmed out, and what was left I have doubled up to 6 colonies. In August I had 18 colonies. I think that they got it from some neighbor's bees,

as I learn that they have foul-broody bees. I would like to ask the following questions:

1. How would it do to cleanse the hives by scalding them, and then get some fresh combs that are known to be free from foul brood taint; then transfer the bees during the first flight in the spring, or before they commence to breed, and move them away from the district where the foul brood is? When in August I found that they were foul broody, I got some phenol and thoroughly sprayed both combs and bees, so that there was not an empty cell; but the liquid entered without effecting any cure or benefit.

2. Are the bees and ground impregnated with the germs that produces dead brood, where the stands were? I think that I have seen some such ideas presented in the BEE JOURNAL; if so, it would be very expedient to move the bees to some other location. I would increase my apiary to 30 colonies, if I thought I could get rid of the foul brood.

Denison, ♂ Tex., Dec. 21, 1887.

[1. If the foul brood is fully developed, and of the disastrous kind, we think the only "cure" we would try, would be to burn up hives, bees, fixtures, etc. We have but little confidence in any of the so-called "cures."

2. Yes; the trees, boards surrounding the apiary, and everything contiguous are liable to be harboring the germs of the disease, which are liable to develop at any time.—ED.]

ANATOMY.

Rudimentary Glands in Bees, and the Evolution Theory.

Written for the American Bee Journal

BY M. B. CHADDOCK.

I notice on page 809 of the BEE JOURNAL for 1887, that in Prof. A. J. Cook's lecture on the anatomy of the honey-bee, he described the glandular system in particular, and said: "One pair of glands furnishes the saliva; another the food for the larvæ. Drones do not have this gland, and it is only rudimentary in the queen, which shows that she once nursed the larvæ as the queen bumble-bee now does in the spring. The change that has taken place in the honey-bee in this respect, is another proof of the correctness of the evolution theory."

Now I want to ask a few questions about those rudimentary glands. A queen is hatched from a worker egg, and that worker egg, if let alone, would hatch out a worker bee. That worker egg is bound to contain *all the parts* that go to make a perfect worker-bee, does it not? If it does contain all the parts, then it must contain the same thing that will develop into a food-gland in the worker-bee. But when by means of richer food, the worker egg is changed into a queen, the rudimentary food gland must remain there. There is no evolution about it; it is in the egg, and must be in the queen, how can it help itself?

Of course drones not being hatched from worker eggs, would not have "the rudimentary food glands;" and as to its being deficient in old worker bees, any gland that is not used becomes deficient.

Do rudimentary glands prove that animals possessing them ever used them for the same purpose that the glands proper are used for now? Do the rudimentary mammary glands in the male hog, prove that once upon a time the male hog suckled the litter of pigs? And do the rudimentary mammary glands in man, prove that our baboon ancestors drew nourishment from the male and female parent, just as it happened, without any distinction of sex?

Vermont, ☉ Ills.

[Will Prof. Cook kindly reply to these queries?—ED.]

CONVENTION DIRECTORY.

1888. *Time and Place of Meeting.*

Jan. 20.—Haldimand, at Cayuga, Ontario.
E. C. Campbell, Sec., Cayuga, Ont.

Jan. 24-26.—Eastern New York, at Albany, N.Y.
John Aspinwall, Sec., Barrytown, N. Y.

Jan. 25, 26.—N. E. Ohio, Northern Pa. and W. New York, at Meadville, Pa.
C. H. Coon, Sec., New Lyme, O.

Feb. 4.—Stark County, at Canton, Ohio.
Mark Thomson, Sec., Canton, O.

Feb. 15, 16.—E. Iowa & W. Ills., at Davenport, Iowa.
H. S. Dibbern, Sec., Milan, Ills.

Apr. 24.—Des Moines County, at Burlington, Iowa.
John Nau, Sec., Middletown, Iowa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Piling in the Pollen.—J. W. Winder, Carrollton, ☌ La., on Jan. 8, 1888, writes:

Bees are piling in pollen now; one colony to-day averaging 20 bees per minute, all heavily laden. Grasshoppers and butterflies are sporting in the sunshine, and the little pestiferous mosquito does not yet neglect his dainty bite, by day or night.

Bees Resting Quietly.—G. M. Whitford, Arlington, ☍ Nebr., on Jan. 8, 1888, says:

The weather at present is very cold, the mercury going 20° below zero last night. Bees have not had a flight since Nov. 24. Those that were put in the cellar are resting quietly.

Bees are Quiet, etc.—S. J. Church & Son, Cedar Rapids, ☍ Iowa, on Jan. 5, 1888, write:

On April 7, 1887, we took 120 colonies out of the cellar in good condition, and lost only 2 colonies by June 1; but we lost 18 colonies more, some by swarming out, 2 were queenless, some by robbing, and others by dwindling. So we had only 102 colonies left by the middle of June. The hives were full of bees and brood, but with little honey, except what we fed them, which was 500 pounds. On July 1 linden was in full bloom, and yielded well for 4 or 5 days. We had 4 natural swarms, made 4 by dividing colonies, and obtained 200 pounds of extracted honey and 100 pounds of comb honey in 1-pound sections; and left 20 to 30 pounds for each colony for winter stores. We put them into the cellar on Dec. 1. They were very quiet with the temperature at 40° to 45°.

Sweet Clover the Best, etc.—Peter Billing, Pawnee City, ☌ Nebr., on Jan, 6, 1888, says:

The bee-keeping spirit is almost down at zero in this vicinity, as the bees scarcely stored any surplus at all the past year. I had 30 colonies in the spring, prevented increase, and obtained about 300 pounds of honey, which was mostly basswood and sweet clover. I believe that sweet clover is the best honey plant for this country, as I have never noticed it to fail.

Yield from Basswood, etc.—Fayette Lee, Cokato, ⊙ Minn., on Dec. 20, 1887, writes:

I commenced the season of 1887 with 75 colonies of bees, being mostly weak colonies. I increased them to 95 colonies, and took 2,700 pounds of extracted honey, and 600 pounds of comb honey in 1-pound sections. I had to feed only 100 pounds in the fall. I never have failed to get a fair crop of honey here. In the fall I took eight empty combs without a bit of pollen in them, put them into an empty hive, and then shook a large swarm in front of the hive. They all went in, and I then fed them 15 pounds of fall honey, after heating it very hot, and then letting it cool. This will prove whether

it is pollen that causes bee-diarrhea or dampness; or whether sugar is better than honey to winter bees on. I shall not let them fly until they have been in the cellar 150 days or more. They were fed on Oct. 25, and put in the cellar on Nov. 5. There is a bee-keeper in Winona, Minn., who wants to know whether basswood yields honey well as far north as this place. Yes, it does; and I have never known it to fail. Sometimes it only lasts for ten days. I got a fine lot of golden-rod honey this fall. The best yield per day from basswood was 21 pounds per colony, gathered in 12 hours; and just at night they gained 3 pounds in one hour.

The Queen-Excluding Honey-Boards, etc.—E. H. Trumper, Hillsdale, ♀ Mich., on Jan. 7, 1888, says:

I have 74 colonies nicely packed in the cellar, where the temperature ranges from 41° to 45°, and most of the time the bees are very quiet. I started last spring with 28 colonies, increased them to 51, and took 2,000 pounds of honey, all in 1-pound sections except 150 pounds of extracted. That is the most honey that I have heard of any one getting here. I have sold about half of my honey. I bought 23 colonies of bees the past fall, and have fed about 2 barrels of sugar. I think that my bees are in good condition for winter. I use the Langstroth frame and hive, all new colonies being hived on 5 frames with starters. I use a queen-excluding honey-board, and thus I do not get any drone comb, and more of the honey is put into the sections.

Children Playing in the Apiary.—Bradford Barlow, Toledo, Ohio, on Jan. 9, 1888, writes as follows when sending his dues for the Bee-Keepers' Union:

I keep bees on a city lot with a family on each adjoining lot. One of my neighbors has a large family of children, who play hide-and-seek in the apiary, when I am handling the bees. They stand by in perfect safety. The same neighbor has grapes, but he does not think the bees are destructive to them.

My Experience with Hives.—John Boerstler, of Vashon, Wash. Ter., writes as follows:

I began bee-keeping about 20 years ago, with a colony of black bees in a box-hive. I made boxes instead of hives for a long time. I next obtained a moth-proof patent hive, and thus spent about $20 for kindling-wood, as that was all it was good for. I afterward paid $5 for the right to make, and $25 for 5 hives of another patent moth-proof style, which I called the "humbug hive." It was not much better than the first, but I made a good hive out of it by making some alterations. After experimenting with several more styles of hives, and spending about $100 more, I heard of and procured a two-story Langstroth hive, and that is, without doubt, the best hive for any bee-keeper. I want no better hive than that.

Before leaving the East, I had 85 colonies of bees, mostly Italians, and nearly all in Langstroth hives. I now am here in Washington Territory starting anew, by getting black bees in box-hives, and then transferring them into Langstroth hives.

If ever any bee-man gets up a gold medal for Father Langstroth, I will be only too glad to pay my share of its cost. It is what he ought to have had long ago, and I hope some one will soon begin to get it up.

Bees in Good Condition.—Mr. Henry Walsh, Sheboygan Falls, Wis., on Dec. 26, 1887, writes:

I have 42 colonies of bees in the cellar, that are in good condition, and which I think will winter all right. I commenced keeping bees four years ago next May, when I bought 4 colonies, which I increased to 9 colonies, and took enough honey for our own use. I did not lose any the following winter. The next year I increased them to 23 colonies, lost 2, and sold $60 worth of honey. I began last spring with 21 colonies, increased them to 42, and took about 600 pounds of comb honey. My best colony stored 72 pounds of finished honey, and 29 pounds of partly finished sections; all white clover and linden.

Bees Dying in the Cellar.—E. T. Jordan, Harmony, Ind., on Jan. 5, 1888. writes:

I placed my bees in the cellar on Nov. 24, 1887, and they seem to be wasting away very fast. I cannot account for it. The temperature of the cellar has not been below 42°, but the most of the time it was at 48°. The ventilation is good. A pipe is connected with the stove-pipe above. The bees leave the hives and die on the cellar floor. I have taken nearly half a bushel of dead bees from 72 colonies. Can any one give some idea of what the trouble is; and suggest a probable remedy? The bees that leave the hives seem to be healthy, with no signs of diarrhea.

Not much Loss in Bees.—Abe Hoke, Union City, Ind., on Jan. 5, 1888, writes:

Bees seem to be very quiet, with not much loss so far. I have one colony that has lost, up to this time, not less than a quart of bees, and it lost heavily last winter; but it came through in pretty fair condition. The winter has not been very cold, 4° below zero being the coldest so far. I am getting ready for next season, and am making some changes. The BEE JOURNAL is a welcome visitor in everything that relates to bees.

Bee-Keepers' Union—Packing Bees.—L. C. Seabright, Blaine, O., on Jan. 7, 1888, writes:

The BEE JOURNAL comes to hand this week looking fresh and bright in its "new dress." I commenced the season of 1887 with 63 colonies, and got 60 pounds of surplus honey. Bees appear to be wintering well in this locality. They have had good flights the last two days. There has been but very little cold weather, and as yet we have had only about three cold days. On the coldest day the mercury was 6° above zero.

Mr. Samuel Rau, on page 11, speaks my sentiments exactly, in regard to packing bees for winter quarters.

I do not see why it is that the Bee-Keepers' Union has not the support of every bee-keeper in the land.

[The apathy of bee-keepers relative to their defensive society—the National Bee-Keepers' Union—is astounding. They *sleep* apparently, on a volcano, which may "belch out" in fury at any moment, judging from the "rumblings" heard but recently. Already the cry of "distress" is heard, but *where are the responsive voices* of "cheer" and "substantial help" which should greet them? Reader, will you reply?—ED.]

Building Drone-Comb, etc.—John G. Pursel, Round Plains, N. Y., on Dec. 12, 1887, writes:

I commenced the season with 10 colonies, and increased them to 30 colonies by natural swarming and dividing. I have read the BEE JOURNAL this year with pleasure. I think that it is a very valuable paper, and the price is nothing compared with the information which it contains. I hived my second swarms on foundation, using starters in the shape of a V, which partly filled the frame. The bees, after drawing them out, began to

build drone-comb all around them. 1. Why did these second swarms, having young queens, build drone-comb as soon as they had drawn out the foundation? 2. To secure brood-comb, must I cut the drone-comb out? 3. If so, when is the proper time to do it?

[1. Presumedly because their queen had failed to become fertilized.

2. I do not see how you can secure worker-comb where the drone-comb is, unless you cut the latter out.

3. The best time to have bees build worker-comb is after all the swarming-fever is over, or when they have a young queen, or both; and of course when everything is favorable for the comb-building.—JAMES HEDDON.]

BEE CONVENTIONS.

Wisconsin State Convention.

The bee-keepers of Wisconsin meet in their fourth annual convention, at the Capitol in Madison, Feb. 8, 1888.

In consequence of the State Agricultural Convention being held in the same week, with its usually interesting essays, speeches, papers and discussions, the bee-convention will probably last but one day. Reduced rates can be secured on all railroads, thereby making the expense much less, and giving those who wish to do so, a chance to attend both conventions.

The following is the programme for the convention:

President's Address, C. A. Hatch, Ithaca
Notes from American Bee-Keepers' Convention, Frank Wilcox, Mauston.
Relation of Producer to the Commission Merchant, A. V. Bishop, Commission Merchant, Milwaukee.
The Heddon Hive and How to Use it, W. H. Putnam, River Falls.
How to Build a Bee-Cellar, D. D. Daniher, Madison.
How to Get the Best Extracted Honey, E. France, Platteville.
Comb or Extracted Honey; Which? F. Minnick, North Freedom.
C. A. Hatch, President, Ithaca, Wis.
Frank Wilcox, Secretary, Mauston, Wis.

Vermont State Convention.

The 14th annual convention of the Vermont Bee-Keepers' Association will be held at the Van Ness House at Burlington, Vt., on Wednesday and Thursday, Jan. 18 and 19, 1888. The order of exercises is as follows:

WEDNESDAY EVENING, 1:30 P. M.—Convention called to order by the President. Reading of the minutes of the last meeting. Reading of the Constitution, etc.

At 2:15.—A paper by W. H. Wheatley, St. Johnsbury, on "Vermont Bees." Followed by discussion of the subject by the convention.

At 2:45—"Experience of Fifteen Years in Bee-Keeping," by H.B. Isham, New Haven.

At 3:00—Discussion: "Is it advisable to insert empty combs in the centre of brood-nests for the purpose of spreading brood in the spring?" Opened by F. M. Wright.

At 3:30—Discussion: "What is the best method to prevent an increase in colonies?" Led by J. E. Crane.

WEDNESDAY EVENING, 6:45—Appointment of committees.

At 7:00—Discussion; "Bee-keeping in Vermont; does it pay?" "Its hindrances," N. G. Webster, Bakersfield. "Its Expenses," J. H. Larabee, Larabee's Point. "Its profits," Geo. Beecher, Essex. "As a business," H. L. Leonard, Brandon.

At 1:15—Essay: "The pleasure and difficulties of bee-keeping;" by a lady bee-keeper.

At 8:15—Essay: "Should women keep bees and join the Bee-Keepers' Association?" by a lady bee-keeper.

THURSDAY FORENOON, 9:00—Reports of the Secretary and Treasurer. Reports of committees, organization, etc.

At 10:15—Discussion: "Is it profitable to use full sheets of foundation in the brood-chamber?" Opened by F. H. McFarland, St. Albans.

At 10:45—Question Drawer. A.E.Manum, Bristol.

At 11:15—Discussion: "Marketing honey." Led by J. E. Crane.

Adjournment. R. H. HOLMES, Sec.

CONVENTION NOTICES.

☞ The Eastern New York Bee-Keepers' Association will meet on Jan. 24, 25 and 26, 1888, in Agricultural Hall, at Albany, N. Y. Every one is welcome. We are sure to have a pleasant an profitable time.
JOHN ASPINWALL, *Sec.*

☞ The Des Moines County Bee-Keepers' Association will hold its next meeting on April 24, 1888, at Burlington, Iowa. JOHN NAU, *Sec.*

☞ The Hardin County Bee-Keepers' Association will meet at the Court House in Eldora, Iowa, on the second Saturday in each month, at noon (12 o'clock), until further notice.
J. W. BUCHANAN, *Sec.*

☞ The next regular meeting of the Stark County Bee-Keepers' Society will be held in Grange Hall at Canton, O., on Feb. 4, 1888. A full attendance is desired, as business of importance will be considered.
MARK THOMSON, *Sec.*

☞ The Eastern Iowa and Western Illinois Bee-Keepers' Association will hold its sixth annual convention in Moore's Hall at Davenport, Iowa, on Feb. 15 and 16, 1888. H. S. DIBBERN, *Sec.*

☞ The Northeastern Ohio, Northern Pennsylvania and Western New York Bee-Keepers' Association will hold its ninth annual convention in the Commercial House Parlor, in Meadville, Penn., on Wednesday and Thursday, January 25 and 26, 1888. Reduced hotel rates have been secured.
C. H. COON, *Sec.*

☞ The annual convention of the Vermont State Bee-Keepers' Association will be held at the Van Ness House, in Burlington, Vt., on the Jan. 18 and 19, 1888. R. H. HOLMES, *Sec.*

☞ The annual meeting of the Northwestern Illinois and Southeastern Wisconsin Bee-Keepers' Association will be held in G. A. R. Hall, corner of State & North Main Sts., in Rockford, Ills., on Jan. 17 and 18, 1888. Dr. Miller will be present, and a good programme is in course of preparation.
D. A. FULLER, *Sec.*

Frank Leslie's Sunday Magazine for February contains an exceedingly interesting article by Lily Higgin, on "Modern English Artists," with portraits, giving just the information that all wish to have. "From the Suez Canal, Through Two Seas, to the Equator," is important, in view of the perennially interesting Eastern Question. The number closes, as usual, with a piece of sacred music.

Honey and Beeswax Market.

CHICAGO.
HONEY.—We quote: White clover 1-lb. sections 18@20c.; 2-lbs., 16@18c.; dark 1-lbs. 17@18c.; 2-lbs. 15@16c. Extracted, is firm at 7@10c., depending upon the quality, and style of package. Dark, 2 or 3 cts. below above quotations. Receipts light and demand fair.
BEESWAX.—22@23c.
Dec. 20. S. T. FISH & CO., 189 S. Water St.

CHICAGO.
HONEY.—Prices range from 18@20c. for the best grades, with light demand; 2-lb. sections, 15@16c. Dark is not wanted. Extracted is steady at 7@10c., according to style of package.
BEESWAX.—20@23c. R. A. BURNETT,
Dec. 7. 161 South Water St.

DETROIT.
HONEY.—Best white in 1-pound sections, 19@20c. Extracted, 11@12c. Demand brisk.
BEESWAX.—21@23c.
Dec. 15. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.
HONEY.—Best white 1-lbs. sections sell at 19@20 cts. Extracted, 7@8c. Demand small.
BEESWAX.—22@25c.
Dec. 15 A. C. KENDEL, 115 Ontario St.

NEW YORK.
HONEY.—We quote: Fancy white in 1-lb. sections, 16@19c.; the same in 2-lbs., 14@16c.; buckwheat 1-lbs., 11@12c.; 2-lbs., 10@11c. Off grades 1@2c. per lb. less. White extracted, 8@9c. Market dull.
BEESWAX.—22@23c.
McCAUL & HILDRETH BROS.,
Dec. 20. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.
HONEY.—We quote: Choice white 1-lbs., 18@20c.; dark, 16@18c.; choice white 2-lbs., 18c.; dark, 15 to 16c. Extracted, white, in 60-lb. tin cans, 9c.; in barrels, 8c.; dark, in barrels, 5@6c. California 2-lb. white comb, 18c.; dark, 16c. Extracted, white, in 60-lb. cans, 8@9c.; amber, 8c.
BEESWAX.—No. 1, 20c.; No. 2, 16@18c.
Dec. 19. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.
HONEY.—Choice comb, 18@20c.; latter price for choice white clover in good condition. Strained, in barrels, 5@6c. Extra fancy, and of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 6½@7c.; in cans, 7 to 9 cents. Short crop indicates further advance in prices.
BEESWAX.—30c. for prime.
Dec. 19. D. G. TUTT & CO., Commercial St.

CINCINNATI
HONEY.—We quote extracted at 4@9c. per lb. Choice comb, 16@20c., in the jobbing way. The demand for extracted exceeds arrivals, and for comb the demand is tame.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Dec. 12. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.
HONEY.—We quote: Fancy white 1-lb. sections, 17@19c.; fancy 2-lbs., 15@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., 11@12c.; 2-lbs., 10@11c. Extracted, white, 9@10c.; buckwheat, 6@7c.
Demand has slackened some, and to make sales we must shade above prices. About Jan. 15 we expect a more active demand.
Dec. 31. F. G. STROHMEYER & CO., 122 Water St.

PHILADELPHIA.
HONEY.—Fancy white 1-lbs., 18@19c.; fair 1-lbs 17c.; dark 1-lbs. are slow sale at 14@15c.; fancy 2-lbs., white, 15@16c.; buckwheat fancy 1-lbs., 13@14 cts.; common, 12c. Prices tend downward.
BEESWAX.—23@24c.
Dec. 11. ARTHUR TODD, 2122 N. Front St.

MILWAUKEE.
HONEY.—Choice white 1-lbs., 20c.; fair, 19@20c.; 2-lbs., 18@19c.; 3-lbs., 16@18c. White extracted in kegs or half-barrels, 9¼@9½c.; in pails or cans, 9½ to 10c.; amber, in ½-barrels, 9¼@9½c.; dark in kegs and barrels, 7@7½c. Demand good, supply fair.
BEESWAX.—22@25c.
Dec. 15. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.
HONEY.—We quote: White to extra, 15@18c.; amber, 10@13c. Extracted, white liquid, 7@7¼c.; amber and candied, 5½@6½c. Market quiet.
BEESWAX.—20@24c.
Jan. 7. SCHACHT & LEMCKE, 122-124 Davis St.

BOSTON.
HONEY.—We quote: 1-lb. sections, 16@17c.; 2-lb. sections, 14@15c. Extracted, 8@9c. The market is not very brisk and sales are slow.
BEESWAX.—25 cts. per lb.
Jan. 12. BLAKE & RIPLEY, 57 Chatham Street.

SAN FRANCISCO.
HONEY.—We quote: White comb, 17@19c.; amber, 12½@15c. Light amber to white extracted, 7½@8c.; amber, dark and candied, 6½@7¼c. Market firm and stocks light.
BEESWAX.—22@23c.
Dec. 12. O. B. SMITH & CO., 423 Front St.

KANSAS CITY.
HONEY.—We quote: Choice white 2-lb. sections, 17@18c.; dark 2-lbs, 14@15c.; choice white 1-lbs., 18 to 20 cts.; dark 1-lbs., 15@16c. White extracted, 7@8c.; dark, 5@6c. Demand is light.
BEESWAX.—21 to 22c.
Jan. 10. HAMBLIN & BEARSS, 514 Walnut St.